

# Product Data Sheet

# Ig Lambda Constant 2 Protein, Human (HEK293, His)

Cat. No.:	HY-P70278
Synonyms:	rHulmmunoglobulin lambda constant 2, His; Ig lambda constant 2; Immunoglobulin Lambda Constant 2; Ig Lambda C Domain; IGLC; IGLC2; immunoglobulin lambda constant 2 (Kern-Oz- marker); MGC20392; MGC45681
Species:	Human
Source:	HEK293
Accession:	P0DOY2 (G1-S106)
Gene ID:	3538
Molecular Weight:	Approximately 16.0 kDa

#### PROPERTIES

AA Sequence	GQPKAAPSVT LFPPSSEELQ ANKATLVCLI SDFYPGAVTV AWKADSSPVK AGVETTTPSK QSNNKYAASS YLSLTPEQWK SHRSYSCQVT HEGSTVEKTV APTECS
Appearance	Lyophilized powder.
Formulation	Lyophilized from a 0.2 μm filtered solution of PBS, pH 7.4.
Endotoxin Level	<1 EU/µg, determined by LAL method.
Reconsititution	It is not recommended to reconstitute to a concentration less than 100 μg/mL in ddH <sub>2</sub> O. For long term storage it is recommended to add a carrier protein (0.1% BSA, 5% HSA, 10% FBS or 5% Trehalose).
Storage & Stability	Stored at -20°C for 2 years. After reconstitution, it is stable at 4°C for 1 week or -20°C for longer (with carrier protein). It is recommended to freeze aliquots at -20°C or -80°C for extended storage.
Shipping	Room temperature in continental US; may vary elsewhere.

## DESCRIPTION

#### Background

The constant region of immunoglobulin light chains, specifically Ig Lambda Constant 2 protein, is integral to the structure of antibodies, also known as immunoglobulins. These membrane-bound or secreted glycoproteins are produced by B lymphocytes and function as receptors in the recognition phase of humoral immunity. Upon binding a specific antigen, membrane-bound immunoglobulins instigate the clonal expansion and differentiation of B lymphocytes into plasma cells that secrete immunoglobulins. Secreted immunoglobulins, in turn, play a pivotal role in the effector phase of humoral immunity, facilitating the elimination of bound antigens. The antigen binding site is orchestrated by the variable domain of one heavy chain, coupled with that of its associated light chain, resulting in each immunoglobulin possessing two antigen binding sites with remarkable affinity for a particular antigen. The variable domains undergo V-(D)-J rearrangement and subsequent somatic hypermutations, enabling affinity maturation after exposure to antigen and selection.

Immunoglobulins are composed of two identical heavy chains and two identical light chains, interconnected by disulfide linkages.

### Caution: Product has not been fully validated for medical applications. For research use only.

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